Massey Ferguson®

WR9725
Windrower Tractor

SERVICE MANUAL
4283458M1

CONTENTS

Part Number 4283458M1 (English)

Printed in U.S.A.
January 2012

Massey Ferguson®

WR9725
Windrower Tractor

SERVICE MANUAL
4283458M1

01 - General Information

Contents

Contents

GENERAL INFORMATION

INTRODUCTION

This service manual has been prepared with the latest service information available at the time of publication. Read the service manual carefully before doing any service on the machine.

Right-hand and left-hand, as used in this manual, is determined by facing the direction the machine will travel when in use.

The photos, illustrations, and data used in this manual were current at the time of printing, but due to possible production changes, your machine can vary slightly. The Manufacturer reserves the right to redesign and change the machine as necessary without notification.

PAGE NUMBERS

All page numbers are made of two numbers separated by a dash, such as 04-9. The number before the dash is the division number. The number following the dash is the page number in that division. The page number will be at the lower right-hand or lower left-hand corner of each page.

UNITS OF MEASUREMENT

Measurements are given in metric units of measurement followed by the equivalent in U.S. units. Hardware sizes are given in millimeters for metric hardware and inches for U.S. hardware.

REPLACEMENT PARTS

To receive prompt efficient service, always remember to give the dealer the following information:

- Correct part description or part number.
- Model number of your machine.
- Serial number of your machine.

MACHINE IDENTIFICATION

FIG. 1: Each machine is identified by a model and serial number on the serial number plate (1). The serial number plate is located near the platform steps.

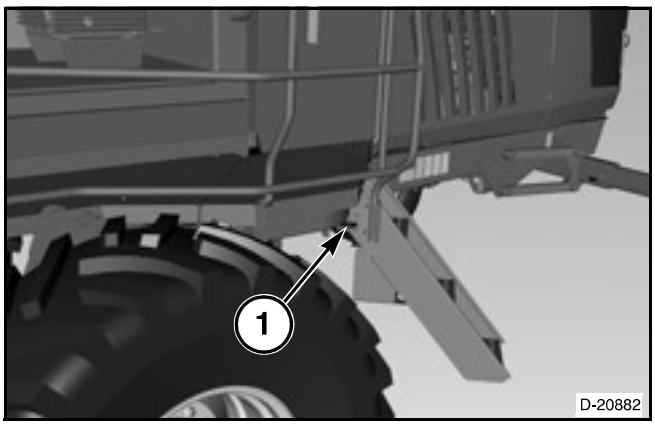

FIG. 1

FIG. 2: The engine serial number is stamped on the engine serial number plate (1).

NOTE: Always give the model number and serial number when communicating with your dealer.

Machine Model Number: _____

Machine Serial Number: _____

Engine Serial Number: _____

Date of Delivery: _____

Dealer Name and Address:

_____

_____

_____

Dealer Telephone Number: _____

Dealer Fax Number: _____

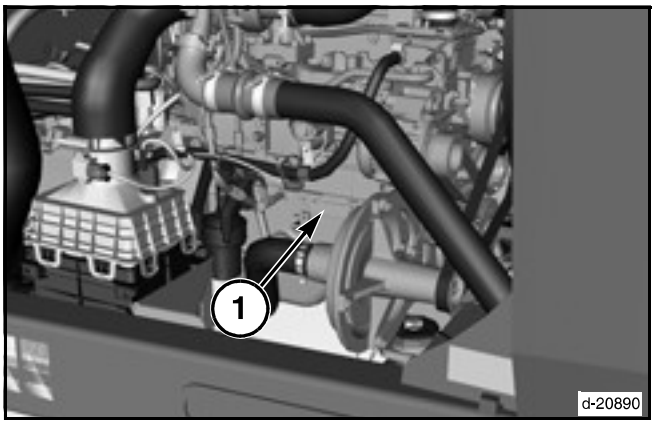

FIG. 2

SERIAL NUMBER DEFINITION

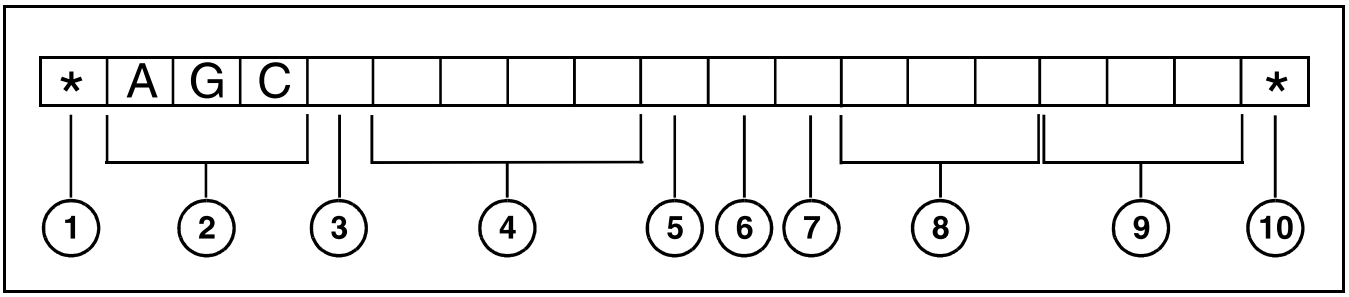

FIG. 3

FIG. 3: Definition of the serial number.

(1) Beginning symbol

(2) World Manufacturer Code

(3) Brand Code

(4) Model Identifier (Model number)

(5) Check Letter (0 or used if model identifier is five digits)

(6) Model Year Code (A=2010, B=2011, C=2012, and on)

(7) Plant Code

(8) Family Code

(9) Unit Number for the Year

(10) Ending symbol

NOTE: For serial number breaks in this manual, only the information from the model year code and following will be given.

MACHINE MAIN COMPONENTS

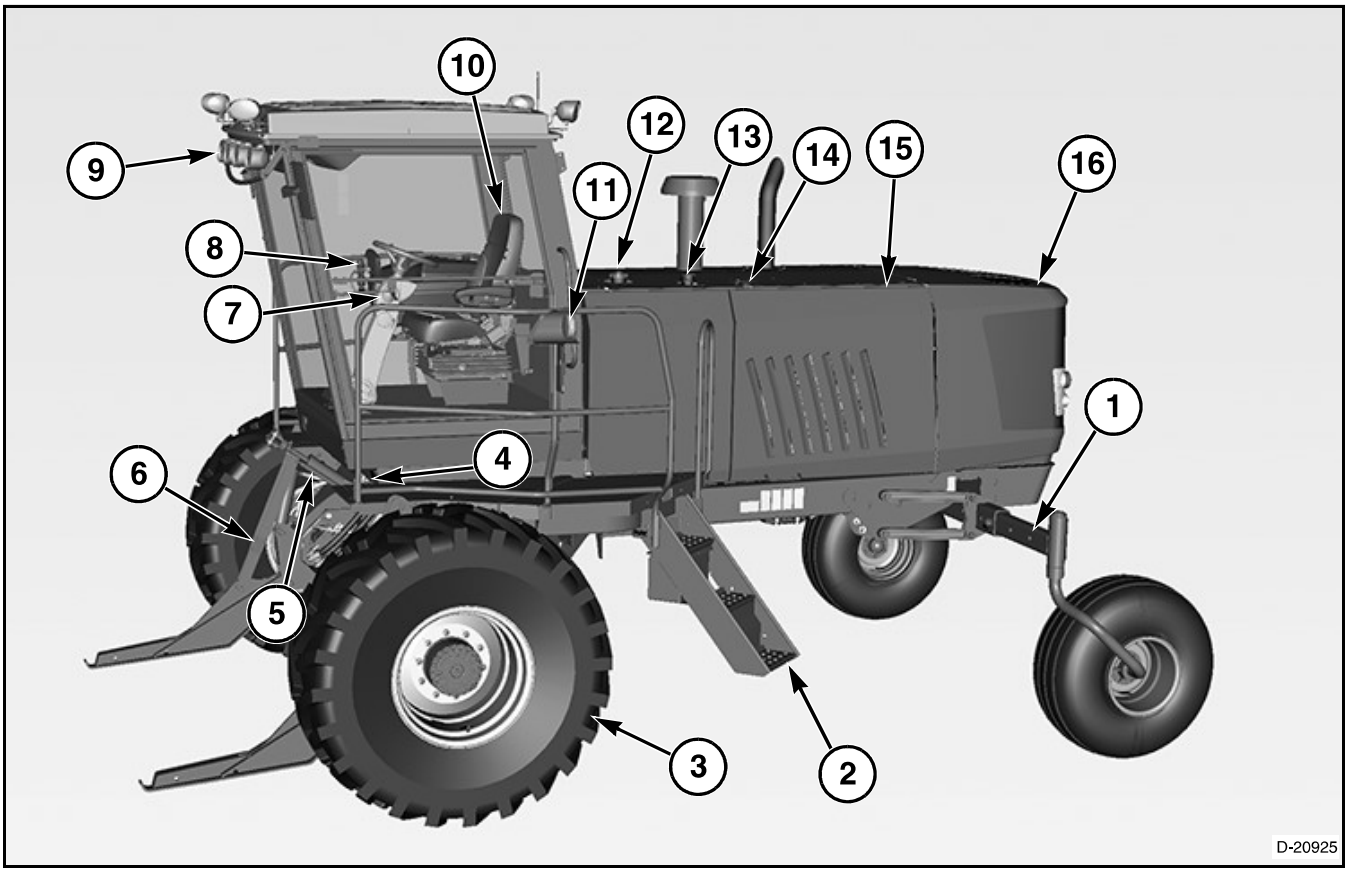

FIG. 4

FIG. 4: Front Left-hand View

(1) Adjustable Rear Axle
(2) Platform Steps
(3) Drive Wheels
(4) Header Hydraulic and Electrical Connections
(5) Header Angle Cylinder
(6) Header Lift Linkages
(7) Steering Column
(8) Control Console
(9) Work Lamps
(10) Operator's Seat
(11) Amber Flashing Warning Lamps
(12) Fuel Fill Location
(13) Hydraulic Oil Fill Location
(14) Engine Coolant Fill Location
(15) Engine Compartment Doors
(16) End Cap (Radiator Compartment)

COMPONENTS ACCESS

Engine Compartment

FIG. 5: The engine compartment can be opened from both the left-hand and right-hand sides.

To open the engine compartment doors (1), pull the door handle (2) and raise the door until completely open.

To close the engine compartment doors, pull down on the door handle until the door is completely closed.

CAUTION: Use caution when going up or down the platform steps when the left-hand engine compartment door is open.

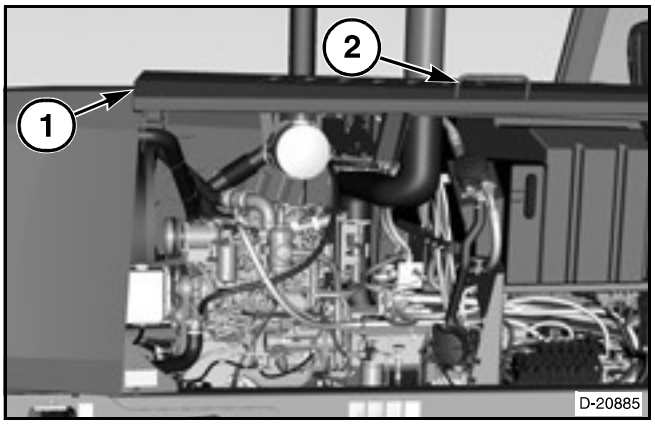

FIG. 5

Radiator Compartment

FIG. 6: To open the radiator compartment, pull down on the latch handle (1) and lift up on the handle (2). Gas springs will help lift and then hold the end cap (3).

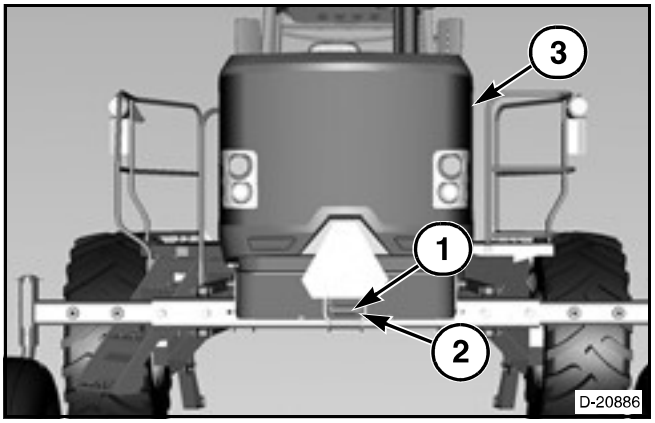

FIG. 6

Standard Cab Roof

The cab roof pivots on two hinges for access to the air conditioner, heater, windshield wiper motor (if installed), and lighting.

IMPORTANT: Do not open cab roof cap where wind can catch cab roof cap and cause damage.

FIG. 7: To lift the cab roof, remove the two knobs (1) that fasten the cab roof to the cab frame. The knobs are inside the cab on the front and rear corners of the left-hand side.

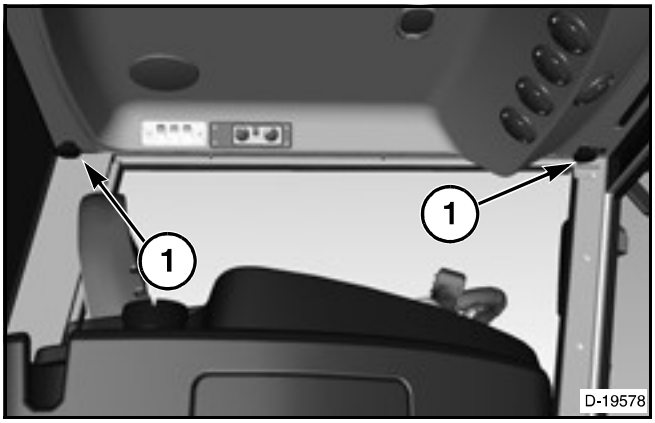

FIG. 7

FIG. 8: From the outside of the cab, lift the left-hand side of the cab roof. Move the support bracket (1) outward until over center to support the cab roof.

To close the cab roof, move the support bracket inward until the cab roof can be lowered. Lower the cab roof all the way. Make sure the roof bolts (2) do not catch on any wiring or hoses. Install and tighten the knobs on the roof bolts from the inside of the cab.

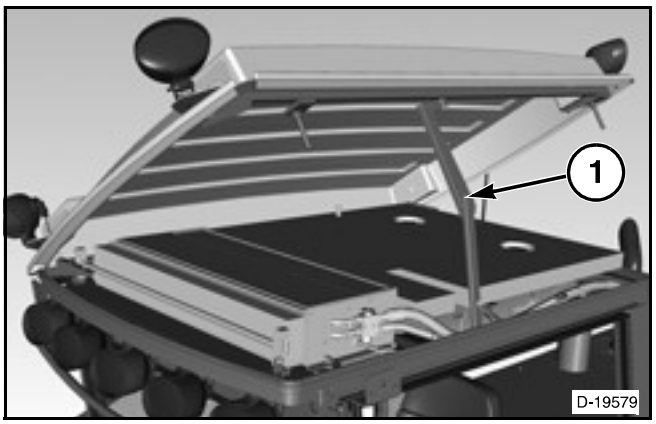

FIG. 8

GROUND DRIVE SYSTEM DESCRIPTION

FIG. 9: The ground drive system is electronically controlled.

The steering wheel sensor (1) and ground speed lever sensor (2) provide signals to the controller (3). The controller then sends the command to the swashplates in the tandem pump (4).

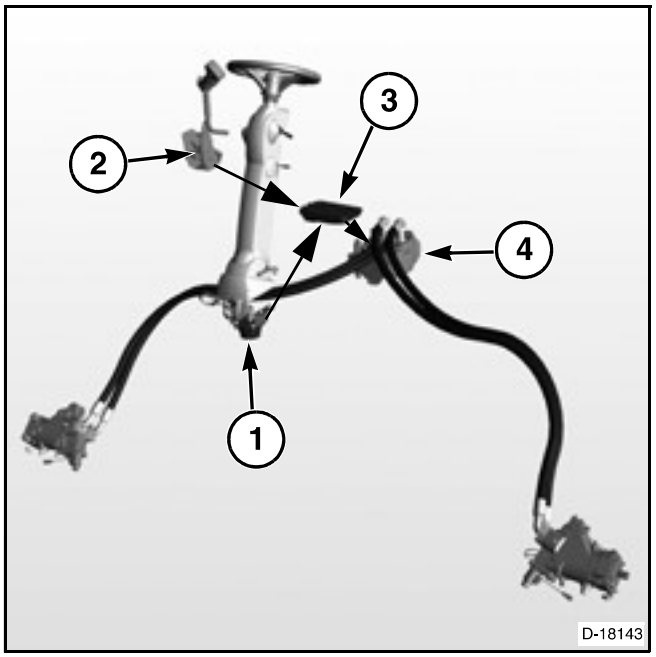

FIG. 9

FIG. 10: The tandem pump is two variable displacement piston pumps mounted together. The front piston pump drives the left-hand ground drive motor and the rear piston pump drives the right-hand ground drive motor. The tandem pump is driven by a gearbox which is driven by the engine crankshaft.

The tandem pump is equipped with four electronic displacement control (EDC) units (1). There is an EDC for each forward and reverse direction for both pump sections. Changing the displacement of the two pump sections independently provides propulsion and steering for the machine.

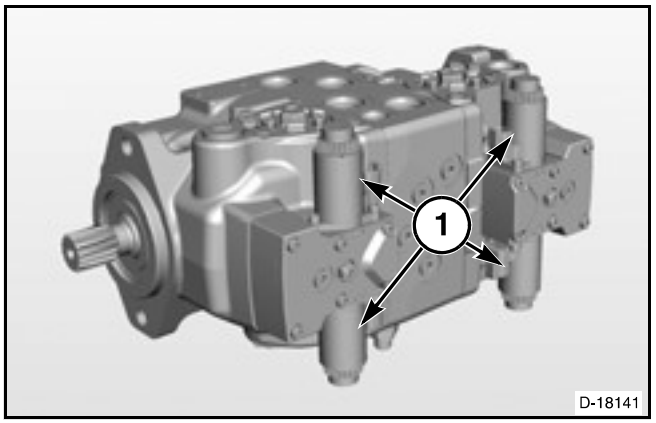

FIG. 10

FIG. 11: The steering input sensor (1) is equipped with an electrical friction device to provide a level of resistance to the steering wheel.

When the park brake switch is engaged, the steering wheel has the maximum level of resistance but can be rotated. However, no steering commands are sent when the park brake is engaged.

During operation, the rotation range of the steering wheel is reduced as the machine travels faster in the same way as a mechanically steered windrower. At low speeds, the steering wheel can be turned several rotations before encountering the steering stop. The available travel is much less at high speeds. The steering wheel can be rotated past the stop. The steering effort will be very high and the steering response will be reduced.

There is no defined straight ahead position on the steering wheel. This is different than some other machines. The straight ahead position is set where ever the steering wheel is located when the park lock switch is disengaged. However, certain conditions, such as increasing or decreasing the vehicle speed while turning, will cause this position to change. This is more similar to a hydrostatically steered tractor or combine than a mechanically steered windrower.

The steering has a variable ratio to provide the most appropriate level of steering response for the current vehicle speed. As the travel speed increased, the machine response to a given steering command is reduced.

Both the steering response rate and the steering wheel friction can be selected by the operator from the settings.

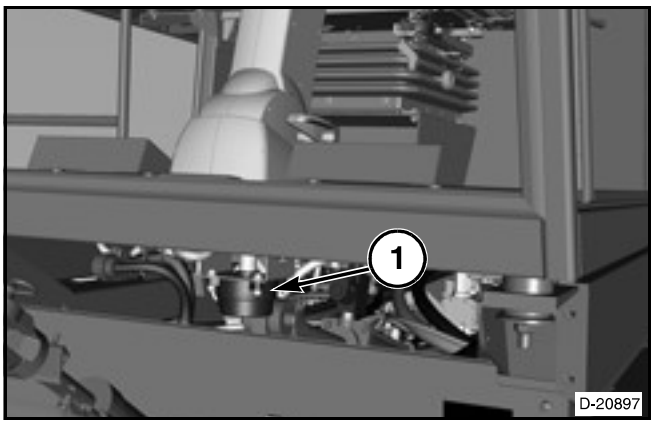

FIG. 11

FIG. 12: There are two types of ground drive motors available.

- The standard motors are fixed displacement. These motors provide vehicle speeds up to approximately 24 km/h (15 mph) depending on tire size.

  The ground speed lever can be set to one of two speed ranges. The first range will limit the vehicle speed when the ground speed lever is all the way forward. This gives increased precision during low speed operation. The second range will permit the maximum speed.

- The optional high speed motors are variable displacement motors.

  This system has three speed ranges for the ground speed lever. The first range will limit the vehicle speed when the ground speed lever is all the way forward and will provide the maximum torque. This gives increased precision during low speed operation. The second range permits field speeds up to approximately 26 km/h (16 mph). The third range allows for road travel up to approximately 34 km/h (21 mph) depending on tire size.

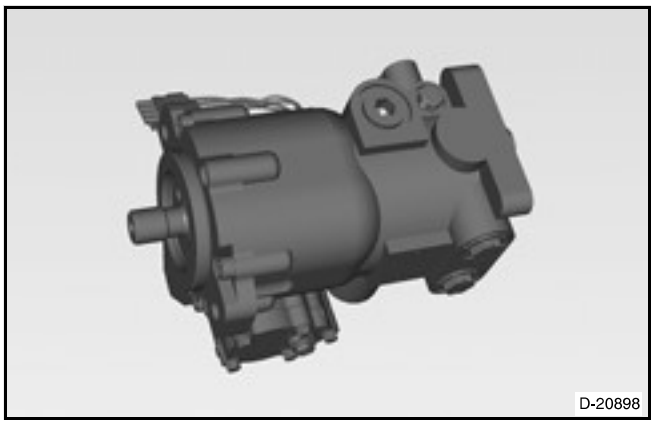

FIG. 12